Research Article

Assessment of Stigmatizing Attitude towards Depression and its Treatment among Medical and Paramedical Students: An Exploratory Study

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Abstract

Background: The prevalence of psychiatric disorders in medical schools has been continuously increasing, escalating the use of antidepressants. Despite this, a huge treatment gap persists, especially in traditional societies like India, where stigma towards mental illnesses is highly prevalent. Prejudice persists not only in the general population but also among medical students. Research on stigmatizing attitudes among medical students towards depression and its treatment is crucial to ensure timely interventions and promote mental wellbeing. Hence this paper aims to assess stigmatizing attitude towards depression and its treatment among medical and paramedical students in a tertiary care teaching hospital.

Material and Methods: Google form was created and data collection was conducted through online platforms that included 474 students. All participants were assessed for depression, anxiety and stress symptoms, antidepressants awareness, and stigmatizing attitude towards depression and antidepressants by using a 21 item Depression Anxiety Stress Scale (DASS) and 28-item self-administered Depression and antidepressants knowledge and awareness scale (DAKAS) respectively.

Results: In study population the mean age was of medical students was 22.07 (SD-3.17) years and paramedical students was 25.88 (SD-5.03) respectively. 80.4 % of participants were medical students and 19.8 % of participants were paramedical students. 12.2% of the medical students and 10.2% of paramedical students reported depression. 44.4% of the student's strongly agreed that happiness achieved through anti-depressants is fake happiness, while 51.9% strongly agreed that antidepressants are addictive.

Conclusion: The findings suggest that awareness and proper knowledge about mental health are lacking among medical profession students and proper measures like medical education must be arranged to promote awareness.

Keywords: Stigma • Depression and antidepressant awareness • Medical students • Depression

Introduction

In India, the prevalence of psychiatric disorders is increasing alarmingly, affecting about 197.3 million people in 2017, out of which 45.7 million people had depressive disorder. The contribution of mental disorders to the total DALYs in India increased from 2.5% in 1990 to 4.7% in 2017 and depressive disorders contributed the most to the total mental disorders DALYs, followed by anxiety disorders [1]. With the rise in mental disorders, the use of antidepressants is also increasing [2]. Despite an increase in treatment options, huge treatment gaps persist, which range between 70% and 92% for different mental disorders in India, and many who seek help fail to adhere to treatment [3]. Help-seeking behavior is much affected by the perceptions and beliefs that people have towards mental health [4]. The persistent preconception and stigmatizing attitude of self and public intercept patient's appropriate treatment [5,6].

Medical students are a high-risk group for depression and anxiety and only a minority of them seek treatment [7]. This raises further concern not only about their subsequent episodes and morbidity but also because they are future medical doctors. Health professionals' stigmatic attitudes towards mental illnesses and treatments have been shown to affect their everyday work, successively impacting their patient's health [8]. Hence having information about medical students' attitudes towards psychiatric disorder and their treatment before entering the medical field and surveying the

efficacy of medical education in upgrading their perception towards mental illnesses, is of crucial importance to patient care. Previous studies are focused on patients and caregiver's attitude and stigma for treatment. Many studies including Doctors and Health professionals had been conducted to analyze the prevalence of depression and perceptions and awareness regarding depression, however, there is a dearth of studies emphasizing the knowledge about antidepressants and stigma towards antidepressant use. To our knowledge, there is not such a study on Indian society.

Taking into account all these factors, this study aims to assess the awareness of antidepressants and stigmatizing attitudes towards depression and antidepressant use among medical and paramedical students from a Health university of North India.

Materials and Methods

The study was conducted in Pt.B.D.Sharma Post Graduate Institute of Medical Sciences Rohtak. A cross-sectional design was employed and a Web sampling technique was used to recruit participants. Ethical approval has been taken from the ethics committee of the university.

Inclusion criteria were students of any gender pursuing any undergraduate or post graduate course. The students pursuing MD or DPM in Psychiatry, Psychiatric Social Work or Clinical Psychology were excluded. Any self-reported case of depressive disorder or students with

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a significant negative life event like the death of family members or friends in last 1 month were also excluded. The socio-demographic data were collected using questions like age, gender, family type, history of physical or psychiatric illness.

Depression Anxiety Stress Scale (DASS) was used for assessing depression, anxiety, and stress among students [9]. It is a set of three self-report scales designed to measure the emotional states of depression, anxiety, and stress. Each of the three DASS-21 scales contains 7 items, divided into subscales with similar content. The depression scale assesses dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest or involvement, anhedonia, and inertia. The anxiety scale assesses autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect. The stress scale assesses difficulty relaxing, nervous arousal, and being easily upset, irritable or over-reactive, and impatient. Scores for depression, anxiety, and stress are calculated by summing the scores for the relevant items.

For assessing stigma and general knowledge on depression and anti-depressants, Depression and Antidepressant Knowledge and Awareness Scale (DAKAS) were used [10]. The scale developed by Oguz Kaan Yalcinkaya in 2021 consists of 2 sections with 17 questions and 11 questions in Section-A and Section-B respectively. The Section-A using a scale approach, addresses the stigma aspect, where participants state their views using the phrases such as 'strongly agree/agree/neutral/disagree/strongly disagree'. The overall stigma score is calculated by combining the first 14 questions. The last 2 questions were used to assess the participant's opinion and were not found to be a good score of stigma, hence excluded from the total score. Section-B evaluates participants' knowledge on depression and antidepressants, using phrases like 'yes/unsure/no'.

Google form consisting of 44 questions was created which included basic socio-demographic details starting from the informed consent and items of the two questionnaires used in the study. All three sub-parts were merged in the one Google form with separators for the convenience of the participants. Google forms were distributed using social networking platforms (Email/WhatsApp/telegram) with the request for further circulation. Three months were kept for data collection and 506 responses were received. 474 participants who met the study criteria were included. Data so obtained was analyzed using SPSS software version 16.0.

Results

The mean age of the study sample of medical students was 22.07 (SD-3.17) years and paramedical students was 25.88 (SD-5.03) respectively. Females (79.4%) outnumbered the males (20.4%) in both the study group. More than half of the participants were Hindu by religion (64.2%), came from extended/joint family (60.8%) and lower socioeconomic status (55%). About 12.2% of medical students and 10.2% of para-medical students reported having depressive symptoms. Among medical students 16.8 % reported anxiety symptoms and 2.93% reported stress symptoms. 11.2% of the paramedical students reported anxiety symptoms and 1.02 % reported stress symptoms. The socio-demographic profile and clinical characteristics of the study sample is depicted in Table 1.

The overall stigma score of the medical students was 37.95 (8.33) and 38.87 (8.63) of the paramedical students. The results of the stigma-based statements in the section A show the high prevalence of stigmatizing attitudes regarding depression in both groups. The results of the knowledge-based statements in Section B show that poor knowledge regarding antidepressants persists in a significant proportion of the study participants (Table 2).

In regression analysis, the predictor for overall stigma score was depressive symptoms, anxiety symptoms, gender and stream/profession (medical and paramedical) with a negative predictor effect shown in Table 3.

Table 1. Sociodemographic and clinical characteristics of study group (N=474).

Variable	Medical students	Paramedical students
	(N=376)/Frequency (%)	(N=98)/Frequency (%)
Age (Mean ± SD), years	22.07 (3.17)	25.88 (5.03)
Male	77 (20.6%)	20 (20.4%)
Female	298 (79.4%)	78 (79.6%)
Family types		
Nuclear	273 (72.6%)	61 (62.2%)
Joint	94 (25.0%)	29 (29.6%)
Separated	9 (2.4%)	8 (8.2%)
Having a physical disease		
Yes	57 (15.2%)	12 (12.3%)
No	319 (84.8%)	86 (87.7%)
Having a psychiatric disease		
Yes	25 (6.6%)	7 (7.1%)
No	317 (84.3%)	88 (89.8%)
Yes, (Don't need treatment)	22 (5.9%)	2 (2.1%)
Don't want to answer	12 (3.2%)	1 (1.0 %)
Severity of depressive, anxiety and stress symptoms as assessed on DASS*	46 (12.2%)	10 (10.2%)
Severity grade of depressive	63 (16.8%)	11 (11.2%)
Severity grade of anxiety symptoms	11 (2.9%)	1 (1.0%)
Severity grade of stress symptoms	37.95 (8.33)	38.87 (8.63)
The overall Stigma score (Mean ± SD)		

Note: *Depression Anxiety Stress Scale, SD=Standard Deviation, N= Number.

Table 2. Responses to the individual statements in Section A and B of study group (N=474).

S. no	Section A	Strongly agree+agree	Neutral	Strongly disagree+disagree
	Medical students (N=381), Paramedical students (N=93)			
1	Depression is a disease and antidepressant usage is normal			
	Medical	266 (70.7%)	52 (13.8%)	58 (15.5%)
	Paramedical	63 (64.3%)	18 (18.4%)	17 (17.3%)
2	Happiness through antidepressant usage are fake happiness	22.07 (3.17)	22.07 (3.17)	22.07 (3.17)
	Medical	167 (44.4%)	112(29.8%)	97 (25.8%)
	Paramedical	40 (40.8%)	25 (25.5%)	33 (33.7%)
3	I think the people who use antidepressants are not strong enough			
	Medical	78 (20.7%)	56 (14.9%)	242 (64.4 %)
	Paramedical	17 (17.3%)	18 (18.4%)	63 (64.3%)
4	When/If I used antidepressants I shared/would share it with my family			
	Medical	266 (70.7%)	59 (15.7%)	51(13.6%)
	Paramedical	74 (75.5%)	10 (10.2%)	14 (14.3%)
5	When/If I used antidepressants I shared/would share it with my friends Medical	244 (64.9%)	84 (22.3%)	48 (12.8%)
	Paramedical	55 (56.1%)	25 (25.5%)	18 (18.4%)
6	Public stigma has a harmful effect on antidepressant drug continuance			
	Medical	318 (84.6%)	47 (12.5%)	11 (2.9%)
	Paramedical	75 (76.5%)	13 (13.3%)	10 (10.2%)
7	Antidepressants are addictive			
	Medical	195 (51.9%)	126 (33.5%)	55 (14.6%)
	Paramedical	50 (51%)	18 (18.4%)	30 (30.6%)
8	Antidepressants change the personality of the user			
	Medical	151 (40.2%)	143 (38%)	82 (21.8%)
	Paramedical	46 (46.9%)	27 (27.6%)	25 (25.5%)
9	Psychological problems can be solved by will-power			
	Medical	296 (78.7%)	57 (15.2%)	23 (6.1%)
	Paramedical	75 (76.5%)	15 (15.3%)	8 (8.2%)
10	Knowing somebody I know is using antidepressants would make me nervous			
	Medical	78 (20.7%)	83 (22.1%)	215 (57.2%)
11	Knowing somebody I know is seeing a psychiatrist would make me nervous			
	Medical	64 (17%)	71 (18.9%)	241 (64.1%)
	Paramedical	18 (18.4%)	23 (23.5%)	57 (58.2 %)
	Paramedical	18 (18.4%)	23 (23.5%)	57 (58.2 %)
	Medical	82 (21.8%)	122(32.4%)	172 (45.7%)
	Paramedical	28 (28.6%)	24 (24.5%)	46 (46.9%)
13	I would be anxious to share that I am seeing a psychiatrist with my family			
	Medical	115 (30.6%)	91 (24.2%)	170 (45.2%)
	Paramedical	28 (28.6%)	21 (21.4%)	48 (49%)
14	I would be anxious to share that I am seeing a psychiatrist with my friends			
	Medical	89 (23.7%)	104(27.7%)	183 (48.6%)

	Paramedical	30 (30.6%)	25 (25.5%)	43 (43.9%)
15	Antidepressants make people numb			
	Medical	75 (19.9%)	141(37.5%)	160 (42.6%)
	Paramedical	29 (29.6%)	33 (33.7%)	36 (36.7%)
16	I think people usually unnecessarily use the phrase 'I am in depression'			
	Medical	212 (56.4%)	88 (53.4%)	76 (20.2%)
	Paramedical'	52 (53.1%)	22 (22.4%)	24 (24.5%)
17	I think increased prevalence it is caused by increased awareness on depression			
	Medical	172 (45.5%)	103(27.4%)	101 (26.9%)
	Paramedical	34 (34.7%)	23 (23.5%)	41 (41.8%)
S.no	**Section B**	**Yes**	**Unsure**	**No**
1	Depression has genetic elements			
	Medical	170 (45.2 %)	112 (29.8%)	94 (25 %)
	Paramedical	30 (30.6%)	24 (24.5%)	44 (44.9%)
2	Antidepressants lower the sexual drive			
	Medical	115 (30.6%)	198 (52.7%)	63 (16.8%)
	Paramedical	42 (42.9%)	35 (35.7%)	21 (21.4%)
3	Antidepressant usage is more common in females			
	Medical	137 (36.4%)	168 (44.7%)	71 (18.9%)
	Paramedical	44 (44.9%)	30 (30.6%)	24 (24.5%)
4	Antidepressants prevent formation of clear thoughts			
	Medical	111 (29.5%)	154 (41%)	111(29.5%)
	Paramedical	32 (32.7%)	26 (26.5%)	40 (40.8%)
5	Antidepressants are only used for the treatment of depression			
	Medical	66 (17.6%)	93 (24.7%)	217(57.7%)
	Paramedical	41 (41.8%)	25 (25.5%)	32 (32.7%)
6	Antidepressants have negative effects on creativity			
	Medical	87 (23.1%)	142 (37.8%)	147(39.1%)
	Paramedical	17 (17.3%)	32 (32.7%)	49 (50%)
7	Antidepressants are drugs that require continuous use			
	Medical	150 (39.9%)	100 (26.6%)	126(33.5%)
	Paramedical	34 (34.7%)	23 (23.5%)	41 (41.8%)
8	Antidepressants show their effects after a short period			
	Medical	188 (50%)	126 (33.5%)	62 (16.5%)
	Paramedical	54 (55.1%)	34 (34.7%)	10 (10.2%)
9	All antidepressants aim to increase levels of serotonin			
	Medical	125 (33.2%)	134 (35.6%)	117(31.2%)
	Paramedical	42 (42.9%)	36 (36.7%)	20 (20.4%)
10	Antidepressants can't be purchased without a prescription			
	Medical	286 (76.1%)	48 (12.8%)	42 (11.2%)
	Paramedical	72 (73.5%)	7 (7.1%)	19 (19.4%)
11	There is no need for a doctor to consult for the use of sedatives			
	Medical	46 (12.2%)	81 (21.5%)	249(66.2%)
	Paramedical	14 (14.3%)	14 (14.3%)	70 (71.4%)
12	Antidepressants can't be used in ages 0-6			
	Medical	181 (48.1%)	141 (37.5%)	54 (14.4%)
	Paramedical	44 (44.9%)	36 (36.7%)	18 (18.4%)

Table 3. Regression analysis on the predictors of overall stigma score.

Predictors	B	Std. Error	Beta	t	Sig.
Depressive symptoms	-0.035	0.08	-0.035	-0.439	0.66
Anxiety symptoms	-0.032	0.097	-0.029	-0.333	0.738
Stress symptoms	0.028	0.099	0.028	0.285	0.775
Age	0.079	0.058	0.075	1.359	0.174
Gender	-0.714	0.494	-0.069	-1.443	0.149
Education	0.245	0.098	0.186	2.488	0.013
Residence/family type	0.133	0.224	0.027	0.593	0.553
Stream/profession	-1.317	0.729	-0.127	-1.806	0.071

Note: p value<0.60.

Discussion

This study measured the awareness of antidepressants and stigmatizing attitudes towards depression and antidepressant use among medical and paramedical students. Stigmatization of mental health disorders can lead to social exclusion and bigotry, adversely affect the course of the illness, and impede treatment options [11,12]. The stigmatizing views of healthcare workers on these topics are pivotal, given their role in patients' welfare [8]. Attitude plays important role to take decision about any action and doctor's view for mental health and related problems has been reported negatives in studies [13]. It is therefore indispensable to evaluate the stigmatizing views of medical students on these topics.

In our study, it was seen that a majority of the participants (approximately 51% of both the medical and paramedical students) believed that anti-depressants are addictive and depression can be solely treated by willpower (78% medical students and 75% paramedical students). But at the same time, a majority of the participants also believed that depression is a disease and anti-depressant usage is normal. This finding suggests that both positive, as well as negative impression regarding depression exists in health care profession students. This finding is in contrast to a study conducted on the general population where mostly negative views were present against depression [14]. It has been seen that people with higher education have a less stigmatizing view regarding mental illness which might explain the prevalence of mixed attitudes in our study. Also in this study since students of all the years were included, a possible explanation might be a less stigmatizing attitude among senior students compared to juniors. A study conducted in the Turkish population saw that, compared to first-year medical graduate students, sixth-year students had more knowledge and less stigmatizing attitude towards depression and antidepressants indicating that medical education is generally effective in reducing the stigmatization related to depression and antidepressants [10].

A majority of the participants in the study, who self-reported for having a psychiatric illness, claimed that they do not need treatment, which also explains their stigmatizing attitude towards antidepressants as seen in the DAKAS scale. A significant proportion of medical and paramedical students believed that antidepressants lower sexual drive and prevent the formation of clear thoughts. Such type of beliefs not only impacts their treatment or treatment of their patients in the future but also impacts their future career choice. It has been seen in previous studies that negative opinion is dominant among medical students regarding psychiatry and mental illness which leads to low interest in choosing psychiatry as a career choice [15]. In countries like India where there is already a dearth of mental health professionals, a further decrease might prove to be detrimental [16].

One of the limitations of the study was that the follow-up method was not used, as it would have been time-consuming, and also it is not possible to find the same participants over a while. The other limitations are that since it was conducted online, the study was limited to only those who had access to a smartphone device, hence the participants may not be representative of students from every stratum. Although we had committed sincere attempts to circulate the questionnaire widely on social media platforms, the response rate had been very less, as it was a volunteer-based survey. About 3/4th of the participants were females, which suggests that the survey did not have the desired snowballing effect, as much as it was expected. Since there is no specific scale to measure knowledge and attitude towards antidepressants, we used the DAKAS scale which had been used in only one study previously and is not validated. A comparative study would have been more informative, but since there is a huge discrepancy between the numbers in both the groups and the majority of the participants being female, which could have led to a biased comparison, a cross-sectional study was carried out. Because of these aforesaid constraints, the findings may not be generalizable to every stratum of medical students.

Despite the limitations, our study gives an idea about the stigmatizing attitude and perception healthcare profession students have regarding depression and antidepressants, and the findings of the study will help in formulating a proper educational curriculum in the future. Understanding the various types of stigmatizing attitudes will also help in delivering appropriate psychoeducational therapy.

Conclusion

The Health professionals should be emphatically aware of the impact their perceptions and eventual judgment about mental health patients and illnesses can have in their caring role. Enhanced knowledge of mental health problems, can lead to lower levels of stigmatization. Proper education must begin during the student phase to curtail the negative impact, stigmatizing attitudes may have on their future patient care. The medical curriculum must give its students the notion of seeing mental health problems as an illness, their victims as patients, and seeing antidepressants as a treatment method. Other than regular medical curriculum, public education programs, and awareness campaigns might help in changing stigmatizing views.

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